



## **WATER RESOURCES RESEARCH GRANT PROPOSAL**

**Project ID:** 2005SD35B

**Title:** Water Conservation Using Automated Irrigation Water Management for Center Pivots

**Project Type:** Research

**Focus Categories:** Irrigation, Water Use, Agriculture

**Keywords:** water management, center pivot, irrigation scheduling, technology

**Start Date:** 03/01/2005

**End Date:** 02/28/2006

**Federal Funds:** \$18,253

**Non-Federal Matching Funds:** \$36,025

**Congressional District:** First

**Principal Investigators:**

Hal D. Werner

Todd P. Trooien

### **Abstract**

Water conservation and increased crop production can result from the use of scientific irrigation scheduling. Center pivots irrigate over 20 million acres in the U.S., but scientific irrigation scheduling is not widely used because of the time and effort required by the farmer. This project will complete the development of an innovative center pivot automation (CPA) system and test it in the field. The CPA system includes monitoring and control hardware, short and long-range radio communications, and irrigation management software. The farmer will maintain overall management of the irrigation system but will be relieved of the daily tedium of irrigation scheduling. Expected benefits of the CPA system include water conservation, increased crop production and profitability, and protection of the environment.